# AK Bering Sea and Aleutian Islands (BSAI) Pacific Cod Longline Fishery

Fishing gear type: Longline/set line

Current category: Category II\*

**Basis for current classification on the LOF:** The total annual mortality and serious injury of killer whales (AK resident stock) in this fishery is greater than 1% and less than 50% of the stock's Potential Biological Removal (PBR) level.

Current list of marine mammal species/stocks injured/killed (a <sup>(1)</sup> indicates those stocks driving the fishery's classification): Killer whale, AK resident <sup>(1)</sup>; Ribbon seal, AK; Steller sea lion, Western U.S.

Estimated number of current participants: 54

Take Reduction Teams/Plans that affect this fishery: None.

Year added to the LOF: 1996

Category when originally listed: Category III

**Basis for original classification on the LOF:** This fishery was proposed for Category II listing because incidental take of resident and transient killer whales more than 1% for this fishery. However, population estimates of both stocks were known to be biased low and NMFS had good estimates of incidental take in this fishery as a result of high observer coverage. Therefore, the levels of take were not thought to have a significant effect on the population and the fishery was listed as Category III.

Estimated number of participants when originally listed: 226

**Past names, if any:** AK Bering Sea, Aleutian Islands cod longline (until 2005); AK Bering Sea, Aleutian Islands Groundfish longline/set line (federally regulated waters, including miscellaneous finfish and sablefish) (until 2004); AK southern Bering Sea, Aleutian Islands, and Western Gulf of Alaska sablefish longline/set line (federally regulated waters) (until 2001).

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Gear description/method for fishing: This fishery uses longline/set line.

Target species: Pacific cod.

**Spatial/temporal distribution of effort:** Fishing effort in this fishery occurs within the U.S. Exclusive Economic Zone of the Eastern Bering Sea and the portion of the North Pacific Ocean adjacent to the Aleutian Islands, which is west of 170°W. long. up to the U.S.-Russian Convention Line of 1867.

**Levels of observer coverage each year**<sup>†</sup>: Observer coverage is calculated by the percentage of observed biomass (percentage of tons caught which were observed). Observer coverage in groundfish fisheries is assigned according to vessel length: vessels greater than 125 ft (30.5 m) have 10% coverage; vessels 60-125 ft (18.3-30.5 m) have 30% coverage; and vessels less than 60 ft (18.3 m) are not observed. Observer coverage in groundfish fisheries varies by statistical area and the pooled percent coverage for all areas is provided in the SARs, and repeated here. From 1998-2005, the pooled observer coverage for all areas was: 34.4%, 31.8%, 35.2%, 29.5%, 29.6%, 29.8%, 25.7%, and 24.6%, respectively.

\*The fishery is classified based on mortalities and serious injuries of a marine mammal stock greater than 1% and less than 50% (Category II) of the stock's Potential Biological Removal (PBR) level.

<sup>†</sup> Observer coverage levels include the latest information reported in the most current final Stock Assessment Report (SAR).

**Management and regulations:** Management measures for the BSAI groundfish fisheries constrain fishing both temporally and spatially. This fishery is federally managed under the BSAI FMP. The authorized gear, fishing season, criteria for determining fishing seasons, and area restrictions by gear type are defined in the regulations implementing the BSAI FMP (50 CFR part 679).

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## History of Changes on the LOF

2009 LOF: Estimated number of participants updated from 114 to 54.

<u>2008 LOF:</u> Deleted killer whale (Eastern North Pacific, GOA, Aleutian Islands, and Bering Sea transient stock) from the list of species/stocks incidentally killed/injured in this fishery. NMFS performed genetic analyses of killer whales killed/injured in this fishery and determined that the fishery only interacts with the resident stock of killer whales.

#### 2006 LOF:

- Added ribbon seals (AK) and Steller sea lions (Western U.S.) to list of species/stocks incidentally killed/injured in this fishery to update the stocks associated with fisheries delineated on the 2004 LOF.
- Changed the stock names of the killer whale transient stock from "Eastern North Pacific transient" to "Eastern North Pacific, GOA, Aleutian Islands, and Bering Sea transient," and the killer whale resident stock from "Eastern North Pacific resident" to "AK resident."
- Added a superscript "1" in Table 1 after killer whale (AK resident) and killer whale (Eastern North Pacific, GOA, Aleutian Islands, and Bering Sea transient), indicating that takes of these stocks are driving the classification of this fishery.

#### 2005 LOF:

- Elevated from a Category III to a Category II based on interactions with killer whales (Eastern North Pacific resident and transient stocks). Estimated take of killer whales (Eastern North Pacific resident) was 0.8 animals/year, or 11.11% of PBR (PBR=7.2); and the estimated take of killer whales (Eastern North Pacific transient) was 0.8 animals/year, or 28.57% of PBR (PBR=2.8).
- Killer whales (Eastern North Pacific resident and transient stocks) added to the list of species/stocks incidentally killed/injured in the fishery based on interactions documented in recent SARs.
- Renamed from the "AK Bering Sea, Aleutian Islands cod longline fishery" to the "AK Bering Sea, Aleutian Islands Pacific cod longline fishery" to correct an error in 2004 LOF where "Pacific" was mistakenly omitted.

## 2004 LOF:

- The "AK BSAI Pacific cod longline" fishery was split from the Category III "AK Bering Sea and Aleutian Islands Groundfish longline" fishery. NMFS recognized that the large fishery groups in AK included in the LOF up through 2004 were not homogenous; instead these represented a diverse group of fisheries with different interactions with marine mammals. The larger fishery was delineated into more discrete fisheries according to area, gear and target species to reflect fisheries as managed under the BSAI Fishery Management Plan (FMP). The newly delineated fishery was listed as a Category III until the completion of analyses of serious injury and mortality in the new fishery, with an estimated 114 participants.
- The list of marine mammal species/stocks incidentally killed/injured in the larger fishery was also delineated to correspond to the more discrete fisheries listed for the first time in 2004. There were no documented species/stocks incidentally killed/injured in the "AK BSAI Pacific cod longline" fishery.

Changes on the LOF when the "AK BSAI Pacific cod longline" fishery was included in the larger "AK BSAI groundfish longline" fishery

2003 LOF: Estimated number of participants updated from 115 to 148.

## 2001 LOF:

- The fishery was split from the "AK southern Bering Sea, Aleutian Islands, and Western Gulf of Alaska sablefish longline/set line (federally regulated waters)" and listed as one of three separate fisheries to make the LOF consistent with the SARs and observer data for these fisheries. This fishery was named the "AK Bering Sea, Aleutian Islands Groundfish longline/set line (federally regulated waters, including miscellaneous finfish and sablefish)".
- Estimated number of participants in the AK BSAI Pacific cod longline fishery was 440.

### 1999 LOF:

- Dall's porpoise (AK) added to the list of species/stocks incidentally killed/injured in the fishery based on one mortality in the Bering Sea portion of the fishery in 1994 and one mortality in 1995.
- Estimated number of participants updated from 226 to 762

1998 LOF: Steller sea lion (Western U.S.) and Pacific white-sided dolphin (Central North Pacific) added to the list of species/stocks incidentally killed/injured in the fishery. A Steller sea lion (Western U.S.) was observed killed in the Bering Sea portion of the fishery in 1994 and two were observed killed in the Gulf of Alaska portion of the fishery in 1990 and 1995, respectively. A Pacific white-sided dolphin (Central North Pacific) was observed killed in this fishery in 1995.